

## CIN'TARI

ATARI® Computer Enthusiasts

P.O. Box 14959

Cincinnati, Ohio 45214

APRIL , 1983

VOL. I ISSUE 4

next meeting **SATURDAY APRIL 16TH**

2:00 p.m.

**FIRST NATIONAL BANK IN NORWOOD**

**NOTE THAT THIS IS THE THIRD SATURDAY IN APRIL!**

**GETTING THERE:** The First National Bank is located directly across the street from the Surrey shopping center in Norwood. This location is central to the tri-state area and easily accesable via the Interstate Highway. Follow I-75 or I-71 to the Norwood lateral and exit on Montgomery road. Go South to 4525 Montgomery road.

The meeting room is on the lower level and may be reached by entering the front of the bank building. Ample free parking is available.

We wish to thank the FIRST NATIONAL BANK for the use of this spacious facility.

### PLEASE NOTE!

A consitutional committee is forming and they are in need of members that would enjoy giving their talents to help draft the document that will be so important to the future of this organization. The meeting will be on April 11th. Any member in good standing may participate in this process. If you wish to offer your services, please call the president Roger Miller at 521-2966. We will have the first reading of this document at the April club meeting. Please feel free to offer your thoughts and suggestions. If<sup>g</sup> have skills in insurance or law, we would ask that you offer your comments to this committee very early in this process. (perhaps April 11th)

**Now** is the time to think about offering your help in any of a number of areas. If you enjoy the thought of making the club grow, the next meeting is where you can get started. The request for committee chairmen will also be brought to the attention of the membership in April. Get involved!

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#### CLUB OFFICERS:

PRESIDENT

VICE PRESIDENT

SECRETARY, TREASURER

ROGER MILLER

E. LANIER WALKER

SCOTT BROWN

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**MARCH 1983 — The March meeting had an unusually heavy load of old and new business to be taken care of. The highlights were:**

Bruce Armstrong resigned as Vice President due to time schedule conflict and the vacancy was opened for general nominations. Two candidates were voted on - Jeff Gramke and E. Lanier Walker - with the majority vote going to E. Lanier Walker. Our thanks go to Bruce Armstrong for his help in getting CIN'TARI off the ground.

Paul Bruggeman is our new SIG chairman for Languages which takes some of the load off Alan Shrock who continues as Hardware Chairman.

Another bulk order for diskettes was taken at the meeting and they will be available for pick up at the April meeting. I also ordered an extra 12 boxes as extras which will also be available for sale at the April meeting for \$18.00 per box.

Since we were not able to reach an agreement with 3M, bulk purchasing of cassettes along with disks was not possible. For our cassette based members, I do have the name of a local supplier and anyone interested should contact me.

Mitch Cohen reported that his Basic I programming class was going well with about 60 people attending and had one more class to go for completion.

On that note, planning for Marty Plumbo's Advanced Basic class got under way and a class night of Friday evening at 7:30 was selected with classes running 2 Hrs. every other week for 2 months. A starting date and location will be available soon and will probably start soon after the April meeting. Pre-registration and payment of the \$10 instructor fee started after the March meeting and will continue through the April meeting. Those wishing to register by mail may do so by using our P.O.Box.

Hardware updates were given on the new Rana disk drive and on the Micro-Mainframe drives. Literature has yet to be received on either drive. Being the impulsive type who can't wait, I ordered a double drive, double density system from Micro-Mainframe which I should have for the April meeting.

Membership cards arrived and were distributed to those members in attendance. Those people who pay membership dues during a meeting will receive their card during the next meeting to allow proper registration of their card.

Responding to a suggestion from the membership, every effort will be made to ensure that the meeting is set up early and will start at 2 P.M. Another suggestion from the membership concerned the availability of a published membership list which would also show special interests or abilities so that members would know who shared common interests and lived nearby. In order to produce such a list and still respect an individual's right to privacy, the April meeting will have a new format sign-in sheet which will contain a line for you to write in any special interests and will also contain a column to be checked off if you want your name and address to appear on the published list.

The program side of the meeting was done by Steve Kaufman who announced and demonstrated his new rewritten version of ATARI(r) DOS which will handle DOUBLE or single sided and double or single density drives. This new DOS is compatible with all types of files and eliminates the serious file-handling incompatibility that the new Percom DOS presents. Steve also demonstrated his Disk Doctor program again. The new Monarch Basic Compiler was also demonstrated and the resulting speed increase in program operation was amazing.

See you at the April meeting!

Scott Brown

\* \* PRESIDENTS CORNER\*\*\*

Hi! Welcome to the April 1983 issue of the CIN'TARI newsletter.

Not much to report this month. We have made progress on the library and now have guidelines provided by the Copyright office in Washington D.C..

The Chair is investigating a diskette made locally, with a leading manufacturer's stock. These diskettes are to be single side-double density and certified to quad-density for quality control purposes. There is a minimum of 500 pieces of media per order, which we have been ordering, but the price on that order would be \$1.65 per disk. The owner of the firm states that he has recorded approximately a 1 in 15,000 error factor. They also can supply ribbon and printer paper at a good price (e.g.) 20lb. Letter Quality 9 1/2"X 11" 3000 sheet tractor perforated, for \$23.00 a carton.

We need volunteers for the CONSTITUTION and BY-LAWS committee.

We have received our diskettes from 3-M. They are packaged in two packs as promised. To be fair and equitable, we will furnish two packs to all members who were at the January '83 meeting who were then or are now paid members. This should take up most of the diskettes, and we apologize for the wait.

We will be dividing the offices of RECORDING SECRETARY and TREASURER effective at the next meeting. Scott has agreed to stay on as RECORDING SECRETARY so we will entertain motions from the floor for TREASURER. Effective in April, Scott will be responsible for distribution of the membership cards. The new TREASURER will be responsible for dues collection. Due to this there will be no dues collection before the meeting.

There will be a reduction in dues for those paying dues in April. Since they will only be active for the remaining (9) months of this year, they will only have to pay \$7.50.

Thats about it for this month. See ya at the meeting.

bye

## **LIBRARY NEWS**

An Executive Committee meeting was held on March 7th for the purpose of defining the CIN'TARI club library and the operating procedures of it. After a full evening a discussion and evaluation of current information, we are pleased to announce that the library will become available starting with the April meeting. The results and procedures of the meeting are as follows:

1.) The library will consist of public domain programs, member submitted programs that have been accurately typed in from magazines, original copyright software that has been either purchased or donated to the library, and paper documents such as technical documentation and magazines.

2.) The library contents will be available to paid club members and to other clubs that we might become affiliated with in a reciprocal library agreement.

3.) Original copyright software and paper documents will be loaned and signed out to members for a maximum time period of (1) month and depending on the popularity and demand may have a reduced time period of loan. Members borrowing original copyright software will be completely responsible for the safe-keeping and return of the software in a useable condition and will also be responsible for it's replacement in kind should it be damaged or lost.

4.) Public domain or user submitted programs typed in from magazines may be copied by the Librarian to member supplied disks at a club meeting as time permits or at some other mutually agreed upon time.

5.) Member submitted programs typed in from magazines should be identical to the magazine article and include all credits and remarks. The source of the program must also be submitted to the Librarian. This is for everyone's legal protection.

## NOT JUST FOR BEGINNERS ONLY

Well, I didn't receive any threatening mail from my first column so I'm going to press my luck this month. In coincidence with the graduation of a whole bunch of new programmers from the BASIC I class, I ran across this short program in Issue #35 of COMPUTE! Magazine which should serve as a final exam for the course. The program is short but must be typed in exactly as it appears. Try to figure out what it does before you RUN it.

```
10 DIM DIM$(1):GRAPHICS 23
20 FOR X=20 TO 59:READ DIM$:COLOR ASC(DIM$)
30 PLOT X,0:DRAWTO X,91:NEXT X
40 XIO 12,#6,237,91,"*= LABEL"
50 XIO 3,#6,44,1,"SAVE D:TEST"
60 GOTO 60
70 DATA B,B,D,E,H,K,L,L,N,O,P,R,T
80 DATA B,B,E,J,J,K,L,L,L,L,N,N
90 DATA A,B,D,F,G,G,J,J,K,K,L,N,O,P
```

Scott Brown

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## THE TRADING POST -- BUY, SELL, OR SWAP

Classified ads are free of charge to paid members. Anyone wishing to place an ad can bring a written copy of the ad to a meeting or can send it to our P.O. Box.

ATARI 400 with 48K and Basic Cartridge - also additional 32K card available - contact Garrett Curtis at 871-7718 eve.

ATARI 800 with 32K, 810 Disk Drive, 410 Recorder, paddles, joysticks, and 23 software programs - \$1000 for entire package or make offer on individual pieces - contact Nan Morton at 530-3186 days or 777-4117 eve.

Looking to buy - ATARI 800 and 810 Disk Drive - contact David Stevens at 831-7555

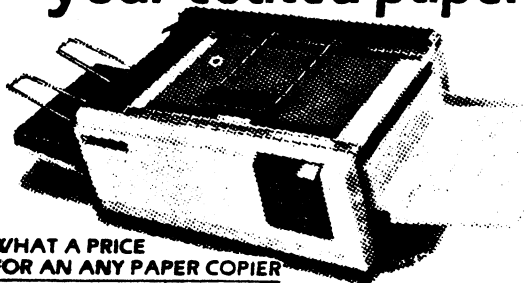
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6.) There will be preprinted library request forms available at each meeting for member use. These request slips should be filled out and given to the Librarian before the start of the meeting so that similar requests can be organized and library requests filled as quickly as possible.

Attached to this newsletter is a listing of currently available library material for your convenience. There may be some confusion and delays as things work themselves out at the start but should run smoothly soon. As always, any suggestions or help is wanted and definitely appreciated.

Scott Brown

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SOFTWARE AUTHORS - TAKE NOTE!

If you have written an original program that you think would be of interest to others, there are several places available to you for publishing.

B.J. SMARTWARE (alias - Steve Kaufman) would be interested in talking to you.

Carl Kuhn, Pres. of Accounting Machine Corp. has informed us he would also like to talk to software authors.

We have also received a letter and sample application form from Micro Education Corporation of America, 285 Riverside Ave., Westport, CT 06880. These people are also interested in software authors and can be contacted by letter or by calling (203) 222-1000 and asking for Fred Isbell. Their letter and application is in our files.

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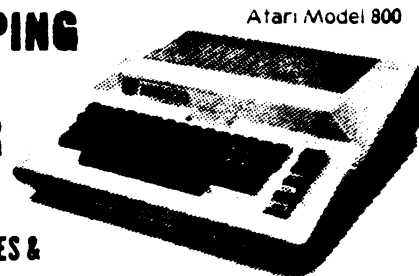
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OTHER HOURS BY APPOINTMENT

## SIGNature

And just when you thought it was safe...I'm back. I thought that I'd just ramble around a little this month (why break the trend?).

First, a little something for BASIC A+ fans. If you have tried using machine language strings in a program only to have BASIC A+ frown on the contents of the string, try SET 5,1. The explanation that I received goes like this. Since BASIC A+ allows lowercase commands, occasionally a machine language string that would be accepted by ATARI BASIC will not be welcomed by BASIC A+. Using this SET command will cause BASIC A+ to see the string in exactly the same way ATARI BASIC sees it. Yes, BASIC does look at the contents of strings. With this (poor) explanation in mind, consult your documentation, it should help to clarify things. No problem, glad to be of help.

How about something for all the ATARI MICROSOFT BASIC fans? Okay, if you insist. I ran across a few cute user defined functions that can be a real help if you use MICROSOFT. The first is DEF FNROUND(X,N)=INT(X/10^N+0.5)\*10^N. This will round X to the Nth decimal place. For example, FNROUND(X,-2) will round to the nearest hundredth, while FNROUND(X,6) rounds to the nearest million (great for government work). DEF FNROUND\$(X,N)=STR\$(FNROUND(X)) does the same thing as the above function, except it returns the result in a string. When you are doing data file manipulation, the function DEF FNV(A\$,S,L)=VAL(MID\$(A\$,S,L)) will extract a sub-string from A\$ starting at S for a length of L characters. And finally, the function DEF FNFIX(X)=SGN(X)\*INT(ABS(X)) is used to simulate the FIX command which is absent in our MICROSOFT implementation. The FIX command sets the number to an integer while preserving the sign of the original number. It also prevents peculiar results from occurring if the argument is negative. FNFIX(-4.1) will evaluate to -4, without it you may get -5. Most of these functions came from an article by James E. Korenthal which appeared in Lifelines Magazine in March, 1982.

I recently found out (via SIG\*ATARI on CompuServe) that a new version of PASCAL will be coming out soon. It requires only 1 drive. It meets ISO standards and has many UCSD extensions plus special extensions to take full advantage of ATARI's special features. It will support the NEWELL FASTCHIP as well as RAMDISK. Sounds interesting... The price is slated to be \$79.95. Also, Synapse Software is working on TrendManager, a plotting and projection program that works with FileManager+ and VisiCalc DIF files. Michael Reichmann (publisher of Mapping The Atari) is writing BIZGRAPH, which will have much the same capabilities. These programs should fill the gap left by the absence of VisiPlot/VisiTrend. FileManager+ is in the process of being totally recoded into FORTH (yea!). This should greatly help the speed of this program. Anyone want to buy a (seldom) used copy of DATA PERFECT?

## CIN'TARI PROGRAM LIBRARY

VOL#	PROG/FILE ID	DESCRIPTION	TYPE	SOURCE	DATE	SECTORS
D004	NOTE.KEY	SOUND & COLOR DEMO	GENERAL			002
D004	COLOR.REC	SCREEN COLOR DEMO	GENERAL			001
D004	TAPEDEUF	BOOT CASSE DUPLICATOR	UTILITY	MICRMED		026
D004	DATAXFER.CAS	TRANSFER DISK TO CAS.	UTILITY	MICRMED	09/82	040
D004	CASD0SK.AUT					013
D004	BOOTCOPY	COPY BOOT CASSE TO DISK	UTILITY	MICRMED		033
D004	CARTCOPY	COPY CARTRIDGE TO DISK	UTILITY	MICRMED		035
D004	ATARI400	GRAPHICS DEMO	GENERAL			044
D004	TRON.SND	SOUNDS OF TRON DEMO	GENERAL	COMPUTE	09/82	012
D004	PITCH	SOUND DEMO	GENERAL			003
D005	AUTORUN.SYS	RELOC MICRODOS SOURCE	UTILITY	COMPUTE	07/82	004
D005	RELDOS.SRC	RELOC MICRODOS OBJECT	UTILITY	COMPUTE	07/82	027
D005	RELDOS.OBJ	RELOC MICRODOS OBJECT	UTILITY	COMPUTE	07/82	024
D005	MEMLOW.SRC	MEMLO PROTECT MICRODOS	UTILITY	COMPUTE	07/82	004
D005	MEMLOW.OBJ	MEMLO PROTECT MICRODOS	UTILITY	COMPUTE	07/82	001
D005	FLAG	FLAG GRAPHICS DEMO	GENERAL			012
D005	QUICKEDIT	WORD PROCESSOR(40 COL)	WORDPRO	MICRMED		042
D005	QUICKEDIT.DOC	QUICKEDIT INSTRUCTIONS	WORDPRO	MICRMED		036
D005	CCOURSE.I	COMPUTER PROG COURSE 1	GENERAL	MICRMED		037
D005	CCOURSE.II	COMPUTER PROG COURSE 2	GENERAL	MICRMED		072
D006	MENU	PERSONAL FINANCE 1.3	FINANCE	MICRMED		029
D030	BOOT DISK	PROTECTOR I	GAME-ML	CRYSTAL	12/82	707
D031	BOOT DISK	HOUSE OF USHER	GAME-BA	CRYSTAL	12/82	707
D032	BOOT DISK	CRUSH, CRUMBLE & CHOMP	GAME-BA	EPYX	12/82	707
D033	BOOT DISK	CANYON CLIMBER	GAME-ML	DATASFT	12/82	707
D034	BOOT DISK	JAM BREAKER (VERS. 1)	GAME-ML	ON-LINE	12/82	707
D035	BOOT DISK	JAM BREAKER (VERS. 2)	GAME-ML	ON-LINE	12/82	707
D008	AGEGUESS	GUESS AGE	GAME	MICRMED		006
D008	DICE	ROLLS DICE	GAME	CONNECT		002
D008	CALAT	WEIGHT MANAGEMENT PLAN	GENERAL	COMPUTE	010183	016
D008	GRAFFIT	WORD GAME	GAME	COMPUTE		013
D008	BIRTHDAY	FAMILY BIRTHDAY RECORD	DATABAS	ATARI		016
D008	DESIGN	DRAMS DESIGNS	GENERAL	COMPUTE		021
D008	ARTST	DRAMS STRING ART	GENERAL	COMPUTE		008
D008	MAZE	DRAMS MAZE DESIGNS	GENERAL	COMPUTE	82	007
D008	COLOR	COLOR DIS.DEMO	DEMO	COMPUTE	82	024
D008	MUS2001	MUSIC PROGRAM	MUSIC	MICRMED	82	030
D008	CLOCK.UTL	ACCESS TIMING CLOCK	UTILITY	ATARI		022
D008	MENU	LOADS PROGRAMS	UTILITY	ATARI		029
D008	AUTORUN.SYS	RUNS MENUE	UTILITY	ATARI		002
D008	CLOCK.SET	CLOCK	DEMO			006
D008	CLOCK1	DIGITAL CLOCK ?	DEMO			027
D008	STATUS	STATUS OF PREFH.	UTILITY			030
D008	ROMAN.NUM	NUMBER CONVERTER	GENERAL	BARGER	81	043
D008	BIORHYTHM	BIORHYTHM CHART	GENERAL	BARGER	81	090
D008	BIORHYTHM	BIORHYTHM CHART	GENERAL	BARGER	81	034
D008	CHECKPRT.2	CALC. & PRINTS MORTG.	GENERAL	OSORNE	1981	027
D008	MORSE	CODE TUTORAL	EDUC.			045
D008	INTEREST	CALCULATES INTEREST	GENERAL	OSBORNE	1981	005
D008	YELLOW.MSC	USE WITH MUSIC COMPOSE	SONG			004
D036	BOOT DISK	SHADON HAWK ONE	GAME	HORIZON	1981	707
D007	WEDGEZ.AUT	LOADER TO ADD COMMANDS	UTILITY	COMPUTE	1982	009
D007	OBJECT.BAS	READS DIRECTORY	UTILITY			037
D007	LE	DICISIN MAKER	GENERAL	M.COHEN	1982	151
D007	FOOD.DAT	FILE FOR LE	DATA	M.COHEN	1982	009
D007	POINT	GUESS X/Y COORDINATE	GAME	M.COHEN	1982	053
D007	THEME	SONGS	MUSIC	M.COHEN	1982	216
D007	JTERM.35	PHONE TERMINAL PROGRAM	UTILITY	COMPUTE	1/1/82	041
D007	MATHFAC.BAS	MATH DRILLS & PRACTICE	EDUC.	JOE G	12/82	032
D007	CALCALT.SAV	WEIGHT & CAL. MGT.	GENERAL	COMPUTE	12/82	042
D037	BOOT DISK	PATFINDER	GAME	CEBELL	1981	707
D038	BOOT DISK	CRANSTON HANDP ADVT.	GAME	ARTW&A	1981	707
D038	BOOT DISK	S.A.M.	VOICE S	DOMTAK	1982	707
D040	BOOT DISK	BOOT CASSETTE MAKER	UTILITY	MUDHEH	1982	707
D041	BOOT DISK	LOAD & CD	UTILITY	ATARI	1982	707
D047	BOOT DISK	SHAMUS	GAME	SYNAPSES		707
D043	BOOT DISK	GHOST HUNTER	GAME	ARCADE	1981	707
D100	VOL2 ISSUE3	MICRO MEDIA MAGAZINE	MAG.	MICK		707
D101	VOL2 ISSUE4	MICRO MEDIA MAGAZINE	MAG.			707
D102	VOL2 ISSUES	MICRO MEDIA MAGAZINE	MAG.			707

## CIN'TARI PROGRAM LIBRARY

VOL#	PROG/FILE ID	DESCRIPTION	TYPE	SOURCE	DATE	SECTORS
D001	AUTORUN.SYS	AUTORUN FOR PROG. LIB.	UTILITY	COMPUTE	10/81	002
D001	PROGLIB	DISK PROGRAM LIBRARY	UTILITY	COMPUTE	10/81	066
D001	PROGSORT	SORT FOR PROG. LIBRARY	UTILITY	COMPUTE	10/81	008
D001	PROGLIB.DB	LIBRARY FILES	UTILITY	COMPUTE	10/81	045
D002	AUTORUN.SYS	CIN'TARI LOGO AUTORUN	UTILITY	M.NAGEL	12/82	030
D002	D	DISK MENU	UTILITY	D.KING	10/82	018
D002	CINTARI.OBJ	CIN'TARI LOGO DEMO	UTILITY	M.NAGEL	12/82	029
D002	GOLF.GAM	MASTERS GOLF	GAME-BA	ANALOG	#1	073
D002	MAZERIDE.GAM	MAZE RIDER	GAME-BA	ANALOG	#1	050
D002	INVADER.GAM	INVADERS	GAME-BA	COMPUTE	04/81	027
D002	CHICKEN.GAM	CHICKEN	GAME-BA	ANTIC	04/82	058
D002	SHOOT	SHOOT (CASS BOOT TAPE)	GAME-BA	COMPUTE	10/81	036
D002	OUTPOST.BAS	OUTPOST	GAME-BA	COMPUTE	06/82	045
D002	GOLDRUSH	GOLDRUSH	GAME-BA	COMPUTE	07/82	042
D002	BRAIN	BRAIN BUSTER	GAME-BA	ANALOG		037
D002	BLASTER.GAM	ASTRO BLASTER	GAME-BA	ANALOG		025
D002	MAZE.GAM	MAZE	GAME-BA	ANALOG	#1	021
D002	TOWERS.GAM	TOWERS OF HANOI	GAME-BA	ANALOG	#3	043
D002	YATZEE	YATZEE	GAME-BA	MICROMED		061
D003	AUTORUN.SYS	AUTORUN FILE FOR MENU	UTILITY		03/82	002
D003	MENU	EXTENDED DISK MENU PGM	UTILITY	S.BROWN	03/82	048
D003	MICROTXT	MICROTEXT 1.5 WORD-PRO	WORDPRO	SOFTSID	04/82	125
D003	PSYCHART.BUS	PSYCHOMETRIC CALCULATR	GENERAL	S.BROWN	03/82	038
D003	PMAD	PLAYER/MISSILE DSGN AID	UTILITY	CRIVCOM	02/82	059
D003	SUPONT	CHARACTER SET GENERATR	UTILITY	COMPUTE	01/82	062
D003	FONTPLOAD	CHARACTER SET LOADER	UTILITY	COMPUTE	01/82	003
D003	FONTPRNT	CHARACTER SET SAVE	UTILITY	COMPUTE	01/82	009
D003	DISKPEEK	DISKPEEK DISK READER	UTILITY	COMPUTE	03/82	042
D003	DISKLABL	DISK DIRECTORY PRINTER	UTILITY	MICRMED		007
D003	CLOCK	SYSTEM CLOCK (VBT)	UTILITY	COMPUTE	08/82	002
D004	AUTORUN.SYS	MICRO-DOS AUTORUN FILE	UTILITY	COMPUTE	07/82	003
D004	MICRODOS.OBJ	MICRO-DOS OBJECT CODE	UTILITY	COMPUTE	07/82	032
D004	MICRODOS.SRC	MICRO-DOS SOURCE CODE	UTILITY	COMPUTE	07/82	032
D004	MICRODOS.BAS	MICRO-DOS BASIC LOADER	UTILITY	COMPUTE	07/82	011
D004	DEHXCNV	DECIMAL/HEX CONVERTER	UTILITY	ATARI		008
D004	VARLIST1.LST	VARIABLE TABLE LISTER	UTILITY	COMPUTE	10/81	002
D004	VARLIST2.LST	VARIABLE TABLE LISTER	UTILITY	COMPUTE	10/81	003
D004	RPHTEST	DISK RPH TEST	UTILITY	COMPUTE	05/82	014
D004	DISKRPM.TST	DISK RPH TEST	UTILITY	COMPUTE		010
D004	NOREM.BAS	REM REMOVER	UTILITY			009
D004	TUTEST	COLOR/BW TV ALIGNMENT	UTILITY	MICRMED		043
D004	NONREAD.TMP	NON-LISTABLE FILEMAKER	UTILITY	COMPUTE		002
D004	OBNDX.TMP	OBNOXIOUS GRAPHIC DEMO	GENERAL	COMPUTE		003
D004	BLINK	CURSOR & TEXT BLINKING	UTILITY	COMPUTE		013
D004	BLINK2	CURSOR BLINKING	UTILITY	ANALOG	11/82	003
D004	LOANANAL	LOAN ANALYZER	FINANCE	COMPUTE	#8	003
D004	RENUMDEL.LST	BAS RENUM/BLOCK DELETE	UTILITY	COMPUTE	11/82	012
D004	BUDGET.BAS	HOME FINANCIAL BUDGET	FINANCE	COMPUTE	02/82	009
D004	ANALYSIS.BAS	BUDGET ANALYSIS	FINANCE	MICRMED		030
D004	WINKY	CHILD EDUCATIONAL PROG	GENERAL	MICRMED		048
D004	HCOTTER	HELICOPTER GRAPHICS	GENERAL	COMPUTE	11/82	031
D004	MARCHER	MOVING FIGURE DEMO	GENERAL			016
D004	LIGHTSHOW	COLOR GRAPHICS DEMO	GENERAL			012
D004	JOYSTICK.TST	JOYSTICK TEST ROUTINE	GENERAL			003
D004	PADBLE.TST	PADBLE TEST ROUTINE	GENERAL			003
D004	LINENUM.GET	FIND LINENUMBR ADDRESS	UTILITY			003



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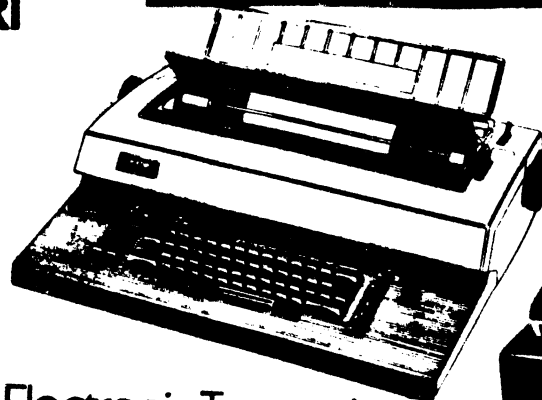


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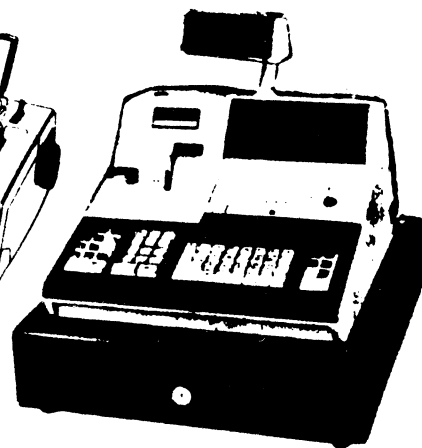
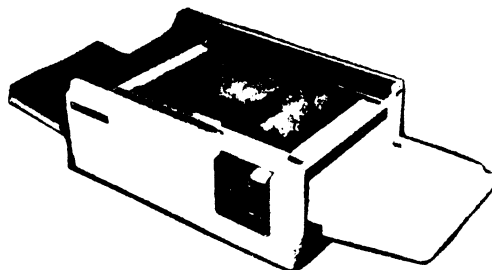
The affordable new Royal 130R cuts your copies and your copying and collating time down to size. It's the copier to see if you're really looking to increase productivity at an affordable price.

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### ROYAL 130R COPYING SYSTEM



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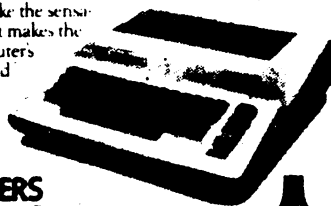
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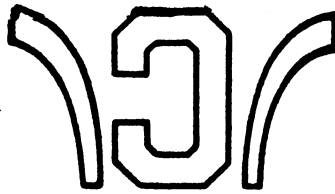
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